INTERSPIRO

Spiromatic Face Mask and breathing valve User manual

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The Interspiro QS S-Face mask has been tested in accordance with EN 136 and EN 137 for types of use specified. EC type-examination (Directive 89/686/EEC) by SGS United Kingdom Ltd., Weston-super-Mare, BS22 6WA, UK. (Notified Body No. 0120).

Safety notice

The product must only be used with:
An approved Interspiro breathing apparatus: SpiroGuide, QS-system or 90-U.

The product must only be used together with an approved Interspiro breathing apparatus or airline system. The product must only be used by personnel in good health and trained in the use of respiratory protective equipment. Individuals with beards or large sideburns may not obtain an adequate seal. The face mask must be maintained, serviced and tested as described in this user manual, Interspiro service manuals and Interspiro test instructions.

INTERSPIRO IS NOT RESPONSIBLE FOR

- MAINTENANCE AND REPAIRS DONE BY PERSONS WHO DO NOT POSSESS A SERVICE CERTIFICATE ISSUED BY INTERSPIRO
- COMBINATIONS OF PRODUCTS, UNLESS THE COMBINATION IS PART OF THE TEST CERTIFICATE
- CHANGES OR ADAPTATIONS MADE TO THE PRODUCT BY A THIRD PARTY

Changes to this document - necessitated by typographical errors, inaccuracies of current information or improvements and changes of equipment - may be made at any time without prior notice. Always refer to www.interspiro.com for product updates, document updates and service bulletins. Exposure to extreme conditions, such as asbestos, may require other actions than described in this manual. The guarantees and warranties specified in the conditions of sale are not extended by this Safety Notice.

MASK AND BREATHING VALVE

1. Connect the breathing valve to the mask by pushing the valve into the connection piece and by turning it anti clockwise so that it grips in the bayonet coupling.

2. Mount the cover, speech cone or radio interface (Savox) in the face mask. Tighten the screws by hand.

3. Connect the SPIROMATIC mask to the breathing hose and tighten the union nut by hand.

CHECKING BEFORE USE

Leakage test

1. Close the positive pressure by turning the black lever of the breathing valve towards the valve housing.

Closed

2. Open the cylinder valve and check the pressure on the pressure gauge.

3. Open the positive pressure by turning the black lever away from the housing. A strong flow of air should be heard.

Open

4. Turn off the positive pressure and read off the pressure gauge. Close the cylinder valve. The pressure should not fall more than 10 bar during one minute. Any leakage in excess should be repaired by a Interspiro Service Certificate holder.

PUTTING ON THE MASK

1. Put the neck strap around the neck. When the mask is not used, turn the mask as shown in the picture to avoid dirt entering the breathing valve.

2. Check that the positive pressure is turned off and open the cylinder valve. Check the pressure.

3. Pull the straps over the mask and put the mask to the face. Be careful that no hair is caught between the mask and the face.

4. Pull the straps over the head.

5. Tighten the straps. If they are too lose the mask will not seal properly.

6. Take a breath to turn on the positive pressure.

TESTING OF THE POSITIVE PRESSURE

1. Hold your breath and listen for any leakages. If there is a fitting leakage check that hair has not come between the mask and the face and adjust if necessary the head harness.

2. Check the positive pressure function by holding the breath and inserting two fingers between the sealing edge and the face, a strong air flow should be heard.

After use

Warning! If the apparatus has been exposed to extreme conditions such as extreme heat or cold, harsh liquids or chemicals, heavy duty dust particles, or extreme shock or vibration, the apparatus must undergo a test and inspection by a holder of an INTERSPIRO Service Certificate.

REMOVING THE MASK

1. Close the positive pressure by turning the lever against the valve house.
2. Open the head harness buckles and loosen the straps.
3. Remove the mask.

MASK AND BREATHING VALVE

DISMANTLING

1. Disconnect the breathing hose.

2. Remove the cover, the speech cone or radio interface by loosening the two screws.

3. Turn the breathing valve clockwise so that it comes away from the bayonet fitting and pull the valve outwards.

4. Dismantle the breathing valve as follows.

a) Unscrew the locking ring and remove the positive pressure unit from the valve housing.

b) Seal off the connection nipple and the inlet channel with rubber plugs.

c) Carefully remove the diaphragm assembly from the cover by squeezing the thread of the cover.

d) Remove the positive pressure spring and the guide disc from the cover.

e) Remove the sealing disc from the diaphragm assembly.

Note! Do not dismantle the diaphragm assembly any further! Further dismantling of the breathing valve should, if necessary, only be carried out by a specialist.

If sand or dirt has entered the valve seat the valve must, for reasons of safety, be dismantled and cleaned. Before use it must be checked with a suitable test-device.

CLEANING AND DISINFECTION

⚠ **Attention! Observe that the equipment may become contaminated by infected body fluids. Always follow the policy prescribed by your organisation. Interspiro recommends that the face mask is cleaned and disinfected by following the procedure described below. If the face mask is shared between different individuals it is advisable to follow this procedure after each use. Solvents, hot water and detergents containing perborate must not be used because the rubber and plastic materials can be damaged.**

1. Wash the face mask and the dismantled breathing valve in lukewarm water with a mild cleaning agent or soap. In the event of heavy contamination a brush can be used.

2. Rinse in clean water.

3. If necessary, disinfect the mask and the breathing valve. Use a disinfectant solution. Thoroughly rinse all the disinfected parts in clean water.

Recommendations! For cleaning solvents Interspiro recommends Spiroclean for cleaning and Spirodec plus for disinfection.

4. Let the parts dry. Temperatures higher than 50° C must not be used for drying.

5. Remove the rubber plugs from the valve housing and check that no water has entered the inlet side of the breathing valve. If water has entered, connect the valve to an apparatus and switch on the positive pressure in order to blow out any remaining water.

ASSEMBLY AFTER CLEANING

All the parts should be dry before reassembling.

1. Place the guide disc with the sealing spring in the cover. Do not straighten the spring. The slight bend is intended.

2. Assemble the sealing disc and the diaphragm assembly. Check that the sealing edge of the diaphragm and the edge of the sealing disc is even and clean.

3. If necessary, lubricate the sealing edge and the sealing area of the sealing disc with lubricant. If needed the O-rings should be lubricated. Lubricant can also be applied to the groove for O-ring in order to keep the O-ring in place.

4. Place the diaphragm assembly on top of the spring and push it down into the cover. Do not twist as the spring tension could be altered.

5. Check that the unit is working correctly by pressing down lightly on the guide pin a few times. The diaphragm assembly should move freely.

6. Place the locking ring on the valve housing and screw on the positive pressure attachment.

7. Check that the guide pin of the positive pressure attachment is correctly placed in the slot of the lever fork.

8. Mount the breathing valve onto the face mask and replace the cover, speech cone or radio interface.

FUNCTION TEST AFTER CLEANING

1. Connect the SPIROMATIC Mask to the regulator unit and air cylinder and turn the lever to the "off" position (against the valve housing). Open the cylinder valve. No flow of air should be heard. A flow would indicate a leakage.

2. Put on the face mask and check that the positive pressure is switched on automatically by the first inhalation. A strong flow of air should be obtained. If not, the valve has been wrongly assembled and should be adjusted and the test repeated.

3. Turn off the positive pressure (the black lever against the valve housing) and take off the mask before exhaling. Wipe the edge of the face mask with disinfectant.
For a more comprehensive function test an INTERSPIRO test unit should be employed.

VISUAL INSPECTION

Inspect the rubber parts, the plastic parts, the non-return valves in the inner mask and the head harness at regular intervals. If any part is defect or damaged, the apparatus must be repaired and checked by INTERSPIRO or a holder of an INTERSPIRO service certificate before it can be used again.

Recommendations

A breathing apparatus for work in contaminated atmosphere shall undergo a complete function test at least once a year, even if it has not been used. Such tests are carried out on an INTERSPIRO test equipment.

For more detailed service and repair work regular courses are held where participants are trained to become authorized servicemen and will receive a Service Certificate.

Storage

The apparatus should be stored in a cool, dust-free and dry place.

Rubber parts must be protected against direct UV radiation, grease and oil.

The breathing valve should be stored with the black lever turned away from the valve housing.

⚠ **Warning! If the apparatus is to be stored at temperatures below 0 ºC it is essential that the apparatus is dried thoroughly before storage.**

The breathing valve should be stored with the black lever turned away from the valve housing.

Service and testing schedule

Service and testing shall be performed according to Service and testing schedule 97307. Visit www.interspiro.com for latest revision.

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